

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

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MORGAN, LEWIS & BOCKIUS LLP

PCT

WRITTEN OPINION (PCT Rule 66)

Applicant's or agent's file reference
57734-5005WO

Date of mailing

(day/month/year)

08.03.2004

REPLY DUE

within 3 month(s)
from the above date of mailing

International application No.
PCT/US 03/17300

International filing date (day/month/year)
03.06.2003

Priority date (day/month/year)
05.06.2002

International Patent Classification (IPC) or both national classification and IPC
B01D57/02

Applicant
THE TEXAS A&M UNIVERSITY SYSTEM et al.

1. This written opinion is the **first** drawn up by this International Preliminary Examining Authority.

2. This opinion contains indications relating to the following items:

- I Basis of the opinion
- II Priority
- III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV Lack of unity of invention
- V Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement Docketed 3-12-04 Attorney EEV
Case 57734-5005WO
- VI Certain documents cited
- VII Certain defects in the international application
- VIII Certain observations on the international application

Case 57734-5005WO
Due Date 10-8-04
Action Written Opinion Due
By SOW Chk PSB

3. The applicant is hereby invited to reply to this opinion.

When? See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also: For an additional opportunity to submit amendments, see Rule 66.4. For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis. For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 05.10.2004

Name and mailing address of the international preliminary examining authority:



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Authorized Officer

Degen, M

Formalities officer (incl. extension of time limits)

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I. Basis of the opinion

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed"*):

Description, Pages

1-24 as originally filed

Claims, Numbers

1-35 as originally filed

Drawings, Sheets

1/9-9/9 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description, pages:
- the claims, Nos.:
- the drawings, sheets:

5. This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

6. Additional observations, if necessary:

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

| | | |
|-------------------------------|--------|-----------|
| Novelty (N) | Claims | 1-35: yes |
| Inventive step (IS) | Claims | 1-35: yes |
| Industrial applicability (IA) | Claims | 1-35: yes |

2. Citations and explanations**see separate sheet**

1. The following documents were cited in the international search report:

D1: US 2002/043465 A1 (RYLATT DENNIS BRIAN ET AL) 18 April 2002 (2002-04-18)
D2: US-A-4 243 507 (MARTIN ARCHER J P ET AL) 6 January 1981 (1981-01-06)
D3: EP-A-0 369 945 (ALIGENA AG) 23 May 1990 (1990-05-23)
D4: RIGHETTI P G ET AL: 'Protein purification in multicompartiment electrolyzers with isoelectric membranes' JOURNAL OF CHROMATOGRAPHY B: BIOMEDICAL SCIENCES & APPLICATIONS, ELSEVIER SCIENCE PUBLISHERS, NL, vol. 699, no. 1-2, 10 October 1997 (1997-10-10), pages 105-115, XP004094992 ISSN: 1570-0232
D5: US 2002/060154 A1 (VIGH GYULA) 23 May 2002 (2002-05-23)

2. Independent **claim 1** meets the criteria set out in articles 35(2)-(4) PCT, because the prior art does not teach or fairly suggest such a method for separating an ampholytic component by electrophoresis.

The teaching of prior art is generally the separation of ampholytes at their pl. Here the ampholytic component is separated in an non-isoelectric state (article 33(2) PCT).

- 2.2 The advantage over known isoelectric state separations is the velocity of the separation (article 33(3) PCT).
3. Dependent **claims 2-35** concern particular embodiments of the subject-matter of above independent **claim 1**, and therefore, they fulfil the requirements of Articles 33(2) - (4) PCT as well.